

What is claimed is:

1. An apparatus for guiding a traffic information in a navigation system, comprising:

5 a GPS receiver for receiving position data from a plurality of GPS satellites;

a storage means for storing a map data and a traffic information;

10 a display means for displaying the stored map data and information of a traffic condition on a screen;

an input means for inputting a variety of key signals and selecting a traffic condition of a current road on a traveling route;

15 a velocity and direction sensing means for sensing a traveling velocity and direction of a moving object;

a wireless communication means for transmitting and receiving a traffic information including the traffic condition of the traveling road; and

20 a control means for controlling each means, controlling the traffic information of the traveling route to be transmitted to the wireless communication means, and controlling the received traffic information to be displayed.

2. The apparatus according to claim 1, wherein the  
25 control means provides respective items of the traffic

condition of the road to a screen display means and/or an audio output means if a traffic condition input mode is selected by a user, and allows the user to select an item matched with a current traffic condition.

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3. The apparatus according to claim 1, wherein the control means enables the display means to display the traffic condition of the road, which occurs on the traveling route, so as to allow the user to select at least one item of the traffic condition, the traffic condition including a traffic congestion, a traffic delay, a slow speed, a normal speed, a traffic accident, a man working.

4. The apparatus according to claim 1, wherein the traffic information received through the wireless communication means includes a current position, a road traffic condition selected on the traveling route by the user, and a current traveling velocity.

5. The apparatus according to claim 1, wherein the traffic information received through the wireless communication means includes a specific interval of a traveling route requested by the user, a road traffic condition selected and provided by other user at the corresponding interval, and a current traveling velocity at

the corresponding road.

6. The apparatus according to claim 1, wherein the traffic information includes a current position of the moving  
5 object, a traffic condition of a road where the moving object is placed, an average traveling velocity of the moving object according to intervals, and a velocity variation at an interval where the moving object travels.

10 7. A navigation system comprising:

a navigation terminal mounted on a moving object, for providing a traveling direction to a user in real time and transmitting/receiving traffic information according to current road conditions on a traveling route;

15 a traffic information center for collecting and analyzing traffic information transmitted from a plurality of moving objects and providing traffic information on traveling routes to the corresponding moving objects; and

20 a mobile communication network for transferring the traffic information being transmitted/received between the navigation terminal and the traffic information center.

8. The navigation system according to claim 6, wherein the traffic condition and the traffic information are  
25 transmitted/received in a form of a short message service

(SMS), the traffic condition being transmitted/received through the mobile communication network, the traffic information including a transmission location.

5           9. A method for guiding a traffic information in a navigation system, comprising the steps of:

displaying a traveling route on a screen;

determining whether a current mode is a traffic condition input mode while a moving object travels;

10           if the current mode is the traffic condition input mode, displaying a current traffic condition on a screen in order for a selection;

checking whether or not the current traffic condition is selected on the displayed screen; and

15           if the traffic condition is selected, transmitting a traffic information message to a traffic information center, the traffic information message including the selected traffic condition, a current position and a current velocity.

10. The method according to claim 9, wherein the  
20 traffic condition input mode includes one of a direct input mode and an indirect input mode, the direct input mode being a mode that a user of a moving object directly selects the traffic condition from a menu, the indirect input mode being a mode that a traffic condition selecting screen is displayed on  
25 a screen if a velocity at a traveling road is less than a

predetermined economical velocity.

11. The method according to claim 9, wherein items of the traffic condition are displayed on the screen or provided  
5 in a form of an audio information in order for the user of the moving object to select a traffic condition of a current road, the items including a traffic congestion, a traffic delay, a slow speed, a normal speed, a traffic accident, and a man working.

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12. The method according to claim 9, wherein the traffic condition selected by the user of the moving object is at least one of items including a traffic congestion, a traffic delay, a slow speed, a normal speed, a traffic  
15 accident, and a man working.

13. The method according to claim 9, wherein the current velocity of the moving object is an average traveling velocity calculated by using a position and velocity at the  
20 traffic condition input location and a position and velocity at the traffic condition selecting location.

14. The method according to claim 9, wherein the traffic information further includes a velocity variation  
25 information representing an increase/decrease of the traveling

velocity by using a velocity difference between the traffic condition input location and the traffic condition selecting location.

5        15. The method according to claim 9, further comprising the steps of:

if the current mode is not the traffic condition input mode, checking whether or not the traffic condition of the traveling route is requested to the traffic information  
10 center;

if the traffic condition of the traveling route is requested, receiving the traffic information corresponding to the traveling route from the traffic information center through a mobile communication network; and

15        displaying the received traffic information on a screen.

16. The method according to claim 15, further comprising the step of displaying an updated traffic condition of the traveling route after the received traffic information  
20 is displayed on the screen for a predetermined time.

17. The method according to claim 9, wherein the traffic information message includes a header information, a traffic condition information and a current transmission  
25 location and is transmitted/received over a short message

service (SMS).